

Grade 7 – Strand: Geometric Properties

Pre-Knowledge What do you need to know to start learning this concept?	Concept	Future Concepts What future concepts can you learn once you understand this concept?	Real World Connection How does learning this connect to the real world in a meaningful way?
<ul style="list-style-type: none"> The meaning of parallel and perpendicular How to use a protractor What angles are, roughly estimate angles 	<ul style="list-style-type: none"> construct related lines (i.e., parallel; perpendicular; intersecting at 30°, 45°, and 60°) 	<ul style="list-style-type: none"> slope of parallel and perpendicular lines using parallel line theorem to calculate angles convert degrees into radian measures 	<ul style="list-style-type: none"> Building things - often things needs to be square, or a particular angle Calculating angles for billiards, hockey, etc.
<ul style="list-style-type: none"> Properties of different types of triangles (isosceles, equilateral, scalene) Properties of different types of quadrilaterals (square, rectangle, parallelogram, rhombus, trapezoid) 	<ul style="list-style-type: none"> sort and classify triangles and quadrilaterals by geometric properties related to symmetry, angles, and sides, through investigation using a variety of tools and strategies 	<ul style="list-style-type: none"> transformations solving triangles and quadrilaterals 	<ul style="list-style-type: none"> determining length of roof trusses determining angles to use in staircases
<ul style="list-style-type: none"> knowing what a bisector is knowing what angles are equal in various triangles/quadrilaterals 	<ul style="list-style-type: none"> construct angle bisectors and perpendicular bisectors, using a variety of tools and strategies and represent equal angles and equal lengths using mathematical notation 	<ul style="list-style-type: none"> solving triangles find equations of perpendicular bisectors 	<ul style="list-style-type: none"> laying down flooring building a house a practical way to get a perfect angle (60°, 30°, 45° degrees) starting with a circle (without using a protractor)